



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D119-646-241
Job Sheet 198186



Part No: D119-646-241

Job Qty: 1 pcs

Part Name: AW119 Replacement Skidtube with Heavy Duty Wearplates - Fits LH or RH



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/23/19

Job Tracking No:

Due Date: 9/2/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG IIN-D119-646 REV D, D3887-045 REV E SHEETS 4, 6-11 IPP RevA: New issue DD verified by:EC IPP REV B 12.11.05 (DEOD3887-B-1)(ecn 12-675) DD verf:JLM IPP REV:C 13.03.20 per chg003 ECN13-534 DD verf:JLM IPP REV:D 17.05.19 as per dwg D3887 rev.e DD verf:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Skid tubes - 1	1 pcs	9/2/19		0.00	0.05	Skid tubes - 1		00
							Skid tubes - 2		
							Skid tubes - 3		
							Skid tubes - 4		
							Skid tubes - 5		
							Skid tubes - 6		
							Skid tubes - 7		
120	Handfinish - 1-1 Chemical- B4B	1 pcs	9/2/19		0.00	0.79	Handfinish - 1 - 1 - B4B		JUL 31 2019
							Handfinish - 1 - 2 - B4B		
							Handfinish - 1 - 3 - B4B		
							Handfinish - 1 - 4 - B4B		
							Handfinish - 1 - 5 - B4B		
							Handfinish - 1 - 6 - B4B		
							Handfinish - 1 - 7 - B4B		
							Handfinish - 1 - 8 - B4B		
							Handfinish - 1 - 9 - B4B		
							Handfinish - 1 - 10 - B4B		
							Handfinish - 1 - 11 - B4B		
							Handfinish - 1 - 12 - B4B		
							Handfinish - 1 - 13 - B4B		
							Handfinish - 1 - 14 - B4B		
							Handfinish - 1 - 15 - B4B		
							Handfinish - 1 - 16 - B4B		
							Handfinish - 1 - 17 -		



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CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
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Container No: S201608



Part: D119-646-241

Job No: 198186

Serial No/Batch: S201608

Revision:

Inspector:

Exp Date:

Instructions: FAA STC SR02024SE 18/10/17, TC STC LoA P.

				B4B	
				Handfinish - 1 - 18 - B4B	
				Handfinish - 1 - 19 - B4B	
				Handfinish - 1 - 20 - B4B	
				Handfinish - 1 - 21 - B4B	
				Handfinish - 1 - 22 - B4B	
121 QC 7	1 pcs	9/2/19	0.00 0.00	QC 7 - 10	
				QC 7 - 13	
				QC 7 - 14	
				QC 7 - 15	
				QC 7 - 17	
				QC 7 - 18	BE
				QC 7 - 19	
				QC 7 - 2	
				QC 7 - 28	
				QC 7 - 3	
				QC 7 - 30	
				QC 7 - 34	
				QC 7 - 36	
				QC 7 - 37	
				QC 7 - 41	
				QC 7 - 47	
				QC 7 - 48	
				QC 7 - 51	
				QC 7 - 58	
				QC 7 - 59	
				QC 7 - 60	
				QC 7 - 9	
				QC 7 - 68	
				QC 7 - 50	
				QC 7 - 67	
				QC 7 - 40	
				QC 7 - 24	
				QC 7 - 43	
				QC 7 - 61	
				QC 7 - 81	
125 QC 5	1 pcs	9/2/19	0.00 0.00	QC 5 - 10	
				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	BE
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
				QC 5 - 40	
				QC 5 - 61	
				QC 5 - 81	

130 Skidtubes - 2 - B4B	1 pcs	9/2/19	0.00 2.38	Skidtubes - 1 - B4B	
				Skidtubes - 2 - B4B	
				Skidtubes - 3 - B4B	
				Skidtubes - 4 - B4B	TF
				Skidtubes - 5 - B4B	
				Skidtubes - 6 - B4B	
				Skidtubes - 7 - B4B	
135 QC 5	1 pcs	9/2/19	0.00 0.00	QC 5 - 10	
				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	BE
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
				QC 5 - 40	
				QC 5 - 61	
				QC 5 - 81	
140 Skidtubes - 3 - B4B	1 pcs	9/2/19	0.00 2.38	Skidtubes - 1 - B4B	
				Skidtubes - 2 - B4B	
				Skidtubes - 3 - B4B	
				Skidtubes - 4 - B4B	
				Skidtubes - 5 - B4B	
				Skidtubes - 6 - B4B	
				Skidtubes - 7 - B4B	
150 QC 5	1 pcs	9/2/19	0.00 0.00	QC 5 - 10	
				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
				QC 5 - 40	
				QC 5 - 61	
				QC 5 - 81	
160 Skidtubes - 4 - B4B	1 pcs	9/2/19	0.00 2.44	Skidtubes - 1 - B4B	
				Skidtubes - 2 - B4B	
				Skidtubes - 3 - B4B	
				Skidtubes - 4 - B4B	
				Skidtubes - 5 - B4B	
				Skidtubes - 6 - B4B	
				Skidtubes - 7 - B4B	

170 QC 5	1 pcs	9/2/19	0.00 0.00	QC 5 - 10	
				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
				QC 5 - 40	
				QC 5 - 61	
				QC 5 - 81	
180 QC 10	1 pcs	9/2/19	0.00 0.00	QC 10 - 10	
				QC 10 - 18	
				QC 10 - 24	
				QC 10 - 43	
				QC 10 - 50	
				QC 10 - 58	
QC 10 - 9					
190 Handfinish - 2-1 Pressure- B4B	1 pcs	9/2/19	0.00 0.33	Handfinish - 2 - 1 - B4B	
				Handfinish - 2 - 2 - B4B	
				Handfinish - 2 - 3 - B4B	
				Handfinish - 2 - 4 - B4B	
200 Powdercoat - 1 White GI(A)- B4B	1 pcs	9/2/19	0.00 0.20	Powdercoat - 1 - B4B	
				Powdercoat - 2 - B4B	
				Powdercoat - 3 - B4B	
				Powdercoat - 4 - B4B	
210 QC 3	1 pcs	9/2/19	0.00 0.00	QC 3 - 10	
				QC 3 - 13	
				QC 3 - 15	
				QC 3 - 17	
				QC 3 - 18	
				QC 3 - 2	
				QC 3 - 28	
				QC 3 - 3	
				QC 3 - 30	
				QC 3 - 34	
				QC 3 - 36	
				QC 3 - 41	
				QC 3 - 51	
				QC 3 - 58	
				QC 3 - 59	
				QC 3 - 68	
				QC 3 - 9	
				QC 3 - 40	
				QC 3 - 19	
				QC 3 - 43	
QC 3 - 24					
QC 3 - 61					
QC 3 - 81					
240 Handfinish - 4-1-Assembly-B4B	1 pcs	9/2/19	0.00 0.79	Handfinish - 4 - 1 - B4B	
				Handfinish - 4 - 10 -	
				Plex 7/23/19 1:40 PM Dart.lajeunesse.marie	

						B4B	
						Handfinish - 4 - 11 - B4B	
						Handfinish - 4 - 12 - B4B	
						Handfinish - 4 - 13 - B4B	
						Handfinish - 4 - 14 - B4B	
						Handfinish - 4 - 15 - B4B	
						Handfinish - 4 - 2 - B4B	
						Handfinish - 4 - 3 - B4B	
						Handfinish - 4 - 4 - B4B	
						Handfinish - 4 - 5 - B4B	
						Handfinish - 4 - 6 - B4B	
						Handfinish - 4 - 7 - B4B	
						Handfinish - 4 - 8 - B4B	
						Handfinish - 4 - 9 - B4B	
250 QC 5	1 pcs	9/2/19	0.00	0.00		QC 5 - 10	
						QC 5 - 12	
						QC 5 - 17	
						QC 5 - 18	
						QC 5 - 19	
						QC 5 - 22	
						QC 5 - 24	
						QC 5 - 3	
						QC 5 - 43	
						QC 5 - 49	
						QC 5 - 51	
						QC 5 - 58	
						QC 5 - 68	
						QC 5 - 9	
						QC 5 - 50	
						QC 5 - 30	
						QC 5 - 40	
						QC 5 - 61	
						QC 5 - 81	
260 Packaging 3-1 - Stock - B4B	1 pcs	9/2/19	0.00	0.00		Packaging 3 - 1 - B4B	
						Packaging 3 - 2 - B4B	
						Packaging 3 - 3 - B4B	
						Packaging 3 - 4 - B4B	
						Packaging 3 - 5 - B4B	
						Packaging 3 - 6 - B4B	
						Packaging 3 - 7 - B4B	
						Packaging 3 - 8 - B4B	
						Packaging 3 - 9 - B4B	
						Packaging 3 - 10 - B4B	
						Packaging 3 - 11 - B4B	
						Packaging 3 - 12 - B4B	
						Packaging 3 - 13 - B4B	
						Packaging 3 - 14 - B4B	
						Packaging 3 - 15 - B4B	
						Packaging 3 - 16 - B4B	
						Packaging 3 - 17 - B4B	
						Packaging 3 - 18 - B4B	
						Packaging 3 - 19 - B4B	
						Packaging 3 - 20 - B4B	
						Packaging 3 - 21 - B4B	
						Packaging 3 - 22 - B4B	

				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
265 DC - 1 - B4B	1	9/2/19	0.00 0.00	DC - 1 - B4B	
	pcs			DC - 2 - B4B	
270 QC 21 - FG	1	9/2/19	0.00 0.00	QC 21 - FG - 21	
	pcs			QC 21 - FG - 70	
				QC 21 - FG - 53	

Part Op 110 - 1- inspect Mat'L D2500-1-190 for damage 2-Cut tube to length as per dwg D3887 (154.8") 3- Ensure squareness of Descriptions: ends and scribe batch#

120 - (Chemical Conversion Coat per QSI005 4.1)

121 - (QC7-Inspect Chemical Conversion Coat)

125 - (QC5- Inspect part completeness to step on W/O)

130 - 1- Install drill Jig DT9477 drill X-bolt spacer pilot holes using 3/16" drill first side only. 2- 2nd side, locating from first saddle holes use DT9861 A/B to drill 2nd side fwd saddle holes. 3- 2nd side locating from fwd saddle drill remaining crossbolt spacer holes using DT9477 4- Open crossbolt spacer holes to finished size as per dwg D3887 (section D-D and E-E) ***DO NOT OPEN FWD Saddles Holes*** 5- Deburr, blow out chips from inside of tube. 6- Bond web in place as per Dwg D3887 & QSI 015. A/R Sikaflex-291 5174342 Sikaflex expire date: 12.08.2019 Start: Aug 7, 2019 Time: 10:35am Finish: Aug 7, 2019 Time: 10:35pm ***** (Adhere for 12 hours) *****

135 - (QC5- Inspect part completeness to step on W/O)

140 - 1- Bend FWD end of tube using bender 1 and bend prog. D3887. ***Must use bending aid DT9544, ensure proper positioning*** 2- Cut FWD end of tube as per dwg D3887. ***Verify measurement*** 3- Buff out marks left from bending 4- Drill FWD cap holes using DT8215. Open FWD & AFT cap holes to 0.208" 5- Open FWD saddle holes to finished size as per dwg D3887 6- Drill FWD x-bolt spacer holes using DT9816 and open to finished size. (verify measurement) 7- Drill Tow ring hole, using DT10047 locate from FWD saddle hole. (verify measurement). Open to finished size. 8- Drill 1.87" and 3.74 holes using DT10045 A&B locate from FWD saddle hole. (verify measurement) as per dwg. 9- C'sink FWD cap hole as per detail "C" 10- Countersink crossbolt spacer holes, and prepare tube for welding, deburr. 11- Deburr and blow out chips from inside of tube.

150 - (QC5- Inspect part completeness to step on W/O)

160 - NOTE: TACK IN 2 MOST FWD X-BOLT SPACERS AND TEST FIT FWD GROUND HANDLING FIXTURE, IF FIXTURE FITS WELL THEN PROCEED. FIXTURE DT10091. 1- Insert crossbolt spacers. Weld as per QSI 004 and Dwg D3887. Remember to back drill each hole before welding the other side. Use aluminum rod A/R Aluminum Rod

2- Grind cross bolt welds flush as per Dwg D3887. Ensure no pin hole. 3- Counterbore x-bolt spacer holes as per Dwg D3887 using DT10279. 4- Deburr and blow out chips from inside of tube 5- Pick D2855-5 cap and transfer drill missing hole. Deburr and identify cap with skid tube batch#.

170 - (QC5- Inspect part completeness to step on W/O) TEST FIT USING FIXTURE DT10091.

180 - (QC10- Inspect visual per QSI004- ground welds)

190 - (Pressure Wash per QSI005 4.3/ Clean and remove all markings)

200 - (White Gloss (Ref: 4.3.5.1) per QSI005 4.3-Alum) ***MASK AREA SHOWN ON SHEET 7, NOTE 9*** START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____

210 - (QC3- Inspect Part Finish)

240 - 1- Install wearplates as per Dwg D3887. 2- Inspect for foreign objects as per QSI 024 3- Install D2855-3 Cap and seal with Sikaflex. Clean excess adhesive. A/R Sikaflex-240/-291 _____ Sikaflex expire date: _____ 4

- Install insert in D2855- Cap. Install cap and seal with Sikaflex. Clean excess adhesive. A/R Sikaflex-240/-291

_____ Sikaflex expire date: _____ 5- INSPECT TORQUE ON BOLTS AS PER DWG.

BY: _____ DATE: _____ 6- Wing Walk as per dwg QSI005 4.4 Batch: _____

250 - (QC5- Inspect part completeness to step on W/O)

260 - (Identify as per dwg & Stock Location: _____) Location: FG108

265 - Photocopy bluefile & type labels per PPP D119-646-241 CHG005

270 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2500-1-190	Ext'n - 1" Beam Tube 4"	1 pcs (1 ea)	110-Skidtubes - 1	5168371
D2579	Crossbolt Spacer	2 pcs (2 ea)	140-Skidtubes - 3 - B4B	
D3885-1	Standard Web	1 pcs (1 ea)	140-Skidtubes - 3 - B4B	5180913
D3681-1	Spacer	12 pcs (12 ea)	160-Skidtubes - 4 - B4B	
D3903-1	Spacer	12 pcs (12 ea)	160-Skidtubes - 4 - B4B	
ALS4-1032-225	Rivnut	1 Ea (1 ea)	240-Handfinish - 4-1-Assembly-B4B	
AN3C46A	Bolt	8 Ea (8 ea)	240-Handfinish - 4-1-Assembly-B4B	
AN3C5A	Bolt	2 Ea (2 ea)	240-Handfinish - 4-1-Assembly-B4B	
D2855-3	Cap	1 pcs (1 ea)	240-Handfinish - 4-1-Assembly-B4B	
D2855-5	Cap	1 pcs (1 ea)	240-Handfinish - 4-1-Assembly-B4B	
D3492-045	Plug Assembly	8 pcs (8 ea)	240-Handfinish - 4-1-Assembly-B4B	
D3672-1	Washer, Phenolic	2 pcs (2 ea)	240-Handfinish - 4-1-Assembly-B4B	
D3849-041	Fwd Heavy-Duty Wearplate, Std Skid Compatible	1 pcs (1 ea)	240-Handfinish - 4-1-Assembly-B4B	
D3849-043	Aft Heavy-Duty Wearplate, Std Skid Compatible	1 pcs (1 ea)	240-Handfinish - 4-1-Assembly-B4B	
D3904-1	Washer	16 pcs (16 ea)	240-Handfinish - 4-1-Assembly-B4B	
MS21043-3	Nut	8 Ea (8 ea)	240-Handfinish - 4-1-Assembly-B4B	
MS24694-C52	Screw	2 Ea (2 ea)	240-Handfinish - 4-1-Assembly-B4B	
NAS1149C0332R	Washer (AN960C10L)	2 Ea (2 ea)	240-Handfinish - 4-1-Assembly-B4B	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Skidtubes - 1	D2500-1-190	1	73	0
140-Skidtubes - 3 - B4B	D2579	2	93	0
	D3885-1	1	20	0
160-Skidtubes - 4 - B4B	D3681-1	12	84	0
	D3903-1	12	79	0
240-Handfinish - 4-1-Assembly-B4B	ALS4-1032-225	1	827	0
	AN3C46A	8	235	0
	AN3C5A	2	783	0
	D2855-3	1	78	0
	D2855-5	1	41	0
	D3492-045	8	4	0
	D3672-1	2	1,587	0
	D3849-041	1	1	0
	D3849-043	1	7	0
	D3904-1	16	72	0
	MS21043-3	8	909	0
	MS24694-C52	2	60	0
	NAS1149C0332R	2	4,422	0

Part Specifications

Specifications could not be found.

Plex 7/23/19 1:40 PM Dart.lajeunesse.marie



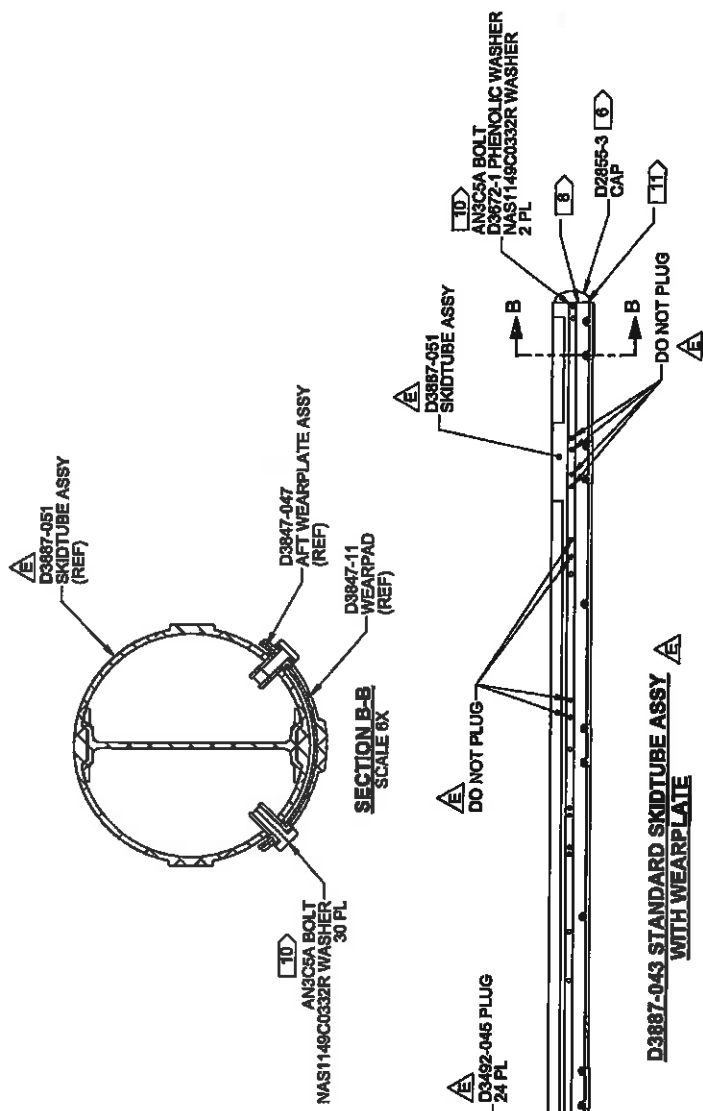
WORK ORDER

NO. 198186 N 5
62-60-6

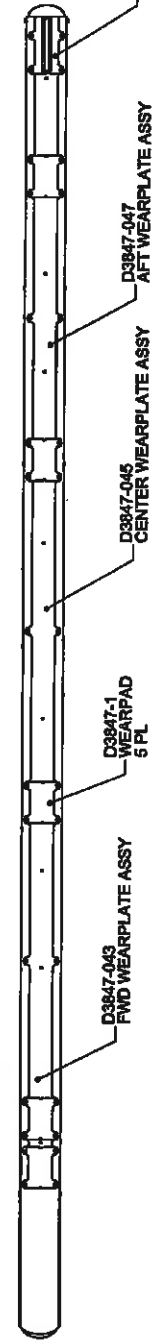
D3687-041 STANDARD SKIDTUBE ASSY WITH WEARPAD(SHOWN)
D3687-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE (SIMILAR)
D3687-045 STANDARD SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)

[illegible]

ITEM	QTY -043	P/N	DESCRIPTION
	X	D3887-043	STANDARD SKIDTUBE ASSY WITH WEARPLATE
1	1	D2855-3	CAP ASSY
2	1	D2855-5	CAP ASSY
3	24	D3492-046	PLUG ASSY
4	2	D3872-1	PHENOLIC WASHER
5	1	D3847-043	FWD WEARPLATE ASSY
6	1	D3847-046	CENTER WEARPLATE ASSY
7	1	D3847-047	AFT WEARPLATE ASSY
8	5	D3847-1	WEARPAD
9	1	D3847-11	WEARPAD
10	1	D3887-051	SKIDTUBE ASSY
11	1	AL94-1032-225	INSERT
12	32	AN3CSA	BOLT
13	2	MS24894-C52	SCREW, CSK 100°
14	32	NAS1149C0332R	WASHER



D3887-043 STANDARD SKIDTUBE ASSY WITH WEARPLATE



- NOTES:**
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY WITH DART PIN "D3887-043" AND BATCH NUMBER PER QSI 044 8.4 ON THE ID OF THE TUBE, BEFORE INSTALLING THE AFT D2855-3 CAP
 - 7) WEIGHT: 37.0 lbs
 - 8) REMOVE INNER RIDGE OF EXTRUSION, AS NEEDED, TO ALLOW FOR INSTALLATION OF D2855-3 AND D2855-5 CAP ASSY. ALODINE BARE MATERIAL
 - 9) USE D3887-051 SKIDTUBE ASSY TO LOCATE AND BACKDRILL UNDER LID INSERT HOLE INTO D2855-5 CAP. OPEN HOLE TO Ø0.267" ALODINE BARE MATERIAL AND INSTALL AL94-1032-225 (OR AKS7-1032-225, OR AKS4-1032-225) INSERT ON INSIDE OF CAP.
 - 10) SEAL FASTENERS WITH SIKAFLEX 241L291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT
 - 11) SEAL MATING SURFACES WITH SIKAFLEX 241L291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT

RELEASED
2017-05-08

DESIGN	RF	WIK	RF	WIK	RF	WIK	RF	WIK
DRAWN			CHECKED			MFG. APPR.		
						APPROVED		
						DE APPR.		
						DATE	17.02.03	

DART AEROSPACE USA, INC.
ELSGINE, OR

D3887
DRAWING NO.

A119 STD SKIDTUBE ASSY
TITLE

REV. E
SHEET 3 OF 11

SCALE
NTS

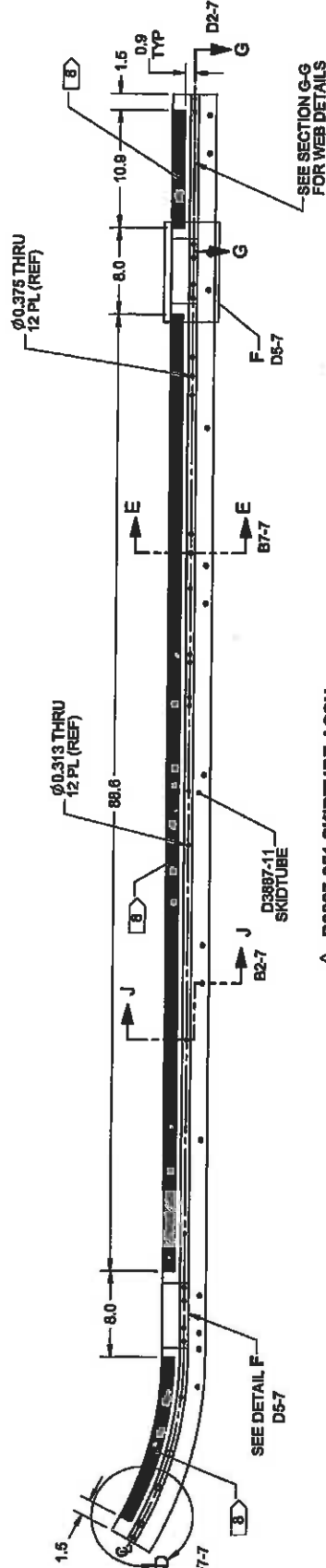
DATE
17.02.03

COMPANY
DART AEROSPACE USA, INC.

PROJECT
A119 STD SKIDTUBE ASSY

REVISION
REV. E

ITEM	QTY	P/N	DESCRIPTION
	451		
1	X	D3887-051	SKIDTUBE ASSY
2	2	D2579	CROSS BOLT SPACER
3	12	D3881-1	CROSS BOLT SPACER
4	1	D3885-1	STANDARD WEB
5	1	D3887-11	SKIDTUBE
6	12	D3903-1	CROSS BOLT SPACER
7	30	ALS4-1032-130	INSERT



D3887-051 SKIDTUBE ASSY
(WELDING DETAIL)

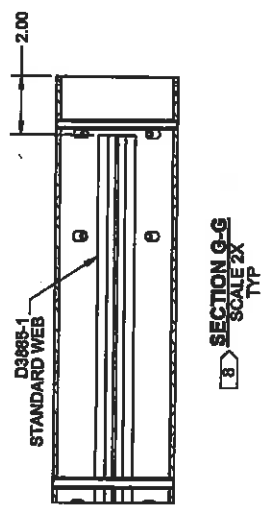
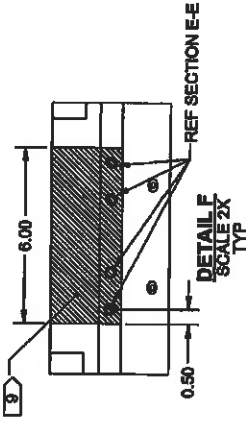
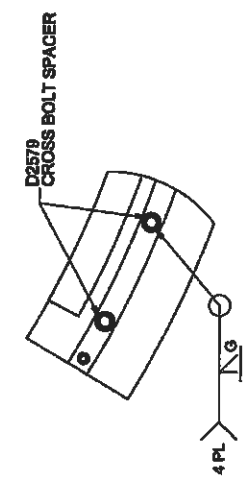
- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK: SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY AT NEXT ASSEMBLY
 - 7) WEIGHT: N/A
 - 8) AFTER APPLICATION OF FINISH, PAINT TOP SURFACE OF SKIDTUBE WITH MIL-W-5044 ANTI-SKID PAINT (WING WALK) AS INDICATED TO 0.50 ABOVE LOCATION RIDGE, PER QSI 005 SECTION 4.4

DESIGN	RF	RF	DART AEROSPACE USA, INC.
DRAWN	WK	WK	EUGENE, OR
CHECKED	RF	RF	DRAWING NO. D3887
MFG. APPR.	DD	DD	REV. E
APPROVED	HS	HS	SHEET 5 OF 11
DATE	17.02.03	DATE	17.02.03
TITLE	DS	DS	A119 STD SKIDTUBE ASSY
SCALE	NTS	SCALE	NTS

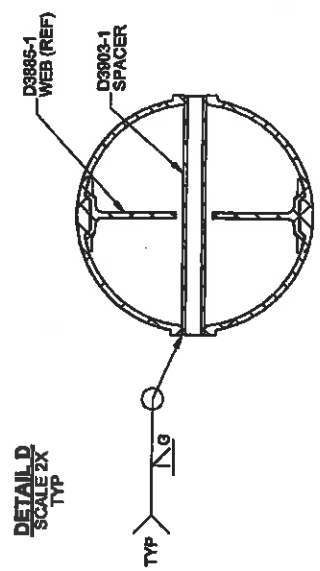
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2017-05-08

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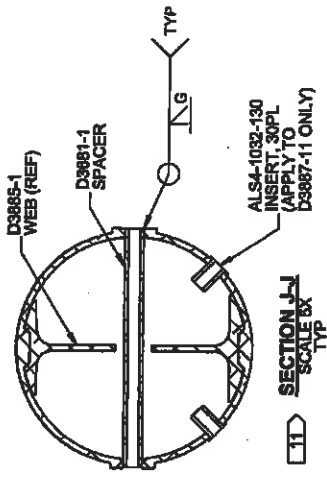
8 7 6 5 4 3 2



DETAIL D
SCALE 2X
TYP



SECTION E-E
SCALE 5X
TYP
(FOR 12X Ø0.375 HOLES
PER SKIDTUBE)



SECTION J-J
SCALE 5X
TYP
(FOR 12X Ø0.313 HOLES
PER SKIDTUBE)

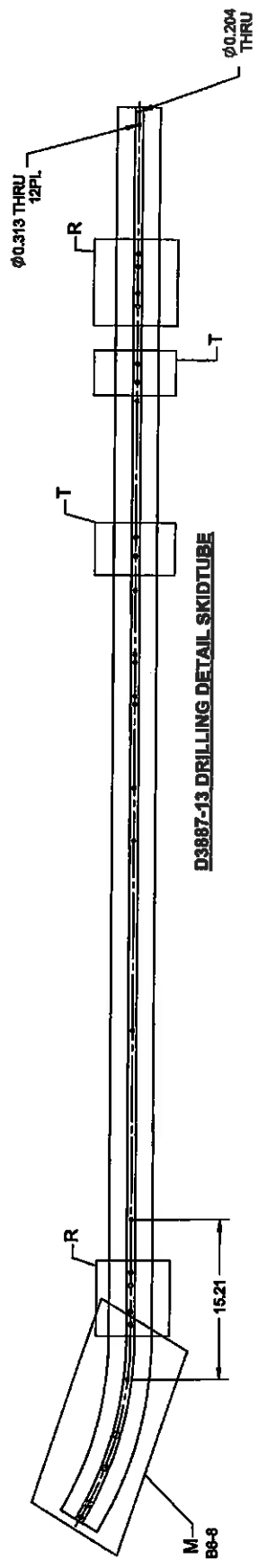
- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART OSI 016 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY AT FINAL ASSEMBLY
 - 7) WEIGHT: N/A
 - 8) INSERT D3885-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH SIKAFLEX-241/281 ADHESIVE PER DART OSI 015 AFTER BENDING. ENSURE HOLES LINE-UP
 - 9) MASK THIS AREA AND DO NOT POWDER COAT
 - 10) AFTER DRILLING AND BENDING ASSEMBLY, PERFORM THE FOLLOWING FOR THE SECTION E-E Ø0.375 HOLES ONLY:
 - i) CHAMFER HOLES Ø0.475 x 45°
 - ii) INSERT D3885-1 SPACER
 - iii) WELD INTO PLACE AND GRIND FLUSH
 - iv) DEBURR HOLES
 - 11) AFTER DRILLING AND BENDING ASSEMBLY, PERFORM THE FOLLOWING FOR THE SECTION J-J Ø0.313 HOLES ONLY:
 - i) CHAMFER HOLES Ø0.354 x 45° OR 0.060 DEEP x 45° (BOTH SIDES)
 - ii) INSERT D3885-1 SPACER
 - iii) WELD INTO PLACE AND GRIND FLUSH
 - iv) DEBURR HOLES
 - 12) WELD PER DART OSI 004

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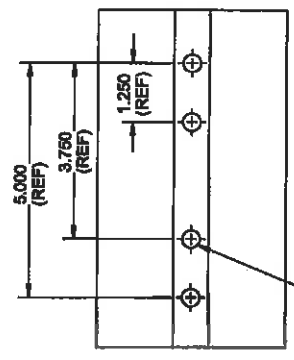
DESIGN	RF	WK	DART AEROSPACE USA, INC. EUGENE, OR
DRAWN	RF	WK	
CHECKED	RF	WK	
MFG. APPR.	DD	DD	DRAWING NO. D3887
APPROVED	HS	HS	REV. E
DATE	17.02.03	DATE	SHEET 7 OF 11
			SCALE NTS
			TITLE A119 STD SKIDTUBE ASSY

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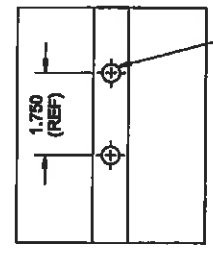
1 2 3 4 5 6 7 8



D3887-13 DRILLING DETAIL SKIDTUBE



DETAIL R
SCALE 4x
2PL



DETAIL T
SCALE 4x
2PL

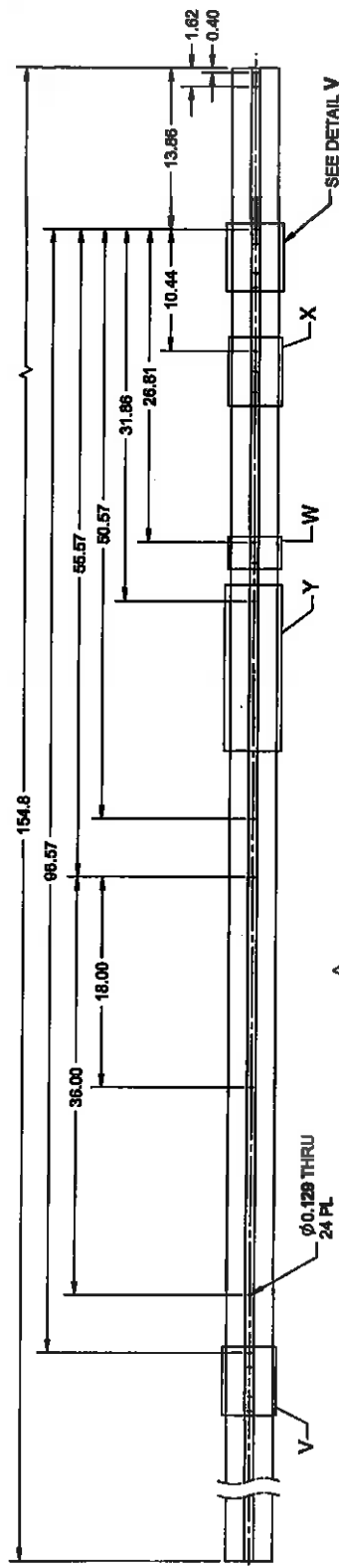
- NOTES:
- 1) MATERIAL: MAKE -13 FROM -1 BEND DETAIL
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY AT FINAL ASSEMBLY
 - 7) WEIGHT: N/A

DESIGN	RF	WK	DART AEROSPACE USA, INC.
DRAWN	RF	WK	EUGENE, OR
CHECKED	RF	WK	D3887
MFG. APPR.	DO	DO	REV. E
APPROVED	HS	HS	SHEET 9 OF 11
DE APPR.	DS	DS	SCALE
DATE	17.02.03		NTS

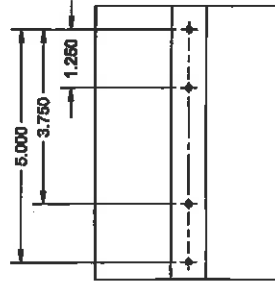
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2017-05-08
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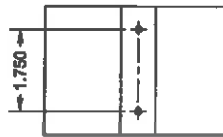
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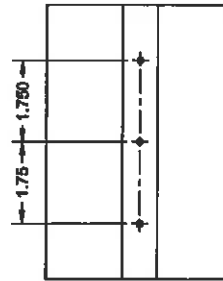
▲ D3887-3 PILOT HOLE DETAIL SKIDTUBE



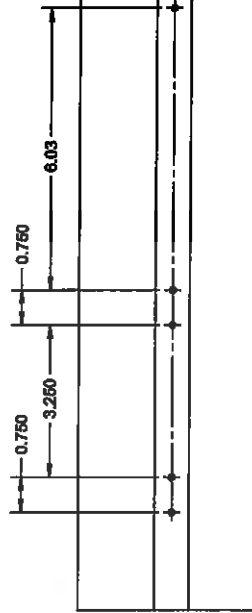
DETAIL V
SCALE 4X
2 PL



DETAIL W
SCALE 4X



DETAIL X
SCALE 4X



DETAIL Y
SCALE 4X

- NOTES:
- 1) MATERIAL: MAKE FROM D2500-1-180 EXTRUSION
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY AT FINAL ASSEMBLY
 - 7) WEIGHT: N/A

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R 2017-05-08

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DESIGN	RF	WK	DART AEROSPACE USA, INC.
DRAWN	RF	WK	EUGENE, OR
CHECKED	RF	WK	DRAWING NO. D3887
MFG. APPL.	DD	DD	REV. E SHEET 11 OF 11
APPROVED	HS	HS	TITLE A119 STD SKIDTUBE ASSY
DE APPR.	DATE	17.02.03	SCALE NT8

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Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐				MRB (QSI042) ☐																																															
Date : _____		Sequence #: _____		QTY Affected : _____		Disposition 																																																	
Description Work Order Deviation 				Completed By 																																																			
Root Cause <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Operator</td> <td style="width:33%;">☐</td> <td style="width:33%;"></td> </tr> <tr> <td>Manufacturing Process</td> <td>☐</td> <td></td> </tr> <tr> <td>Equip/Tooling</td> <td>☐</td> <td></td> </tr> <tr> <td>Handling/Preservation</td> <td>☐</td> <td></td> </tr> <tr> <td>Material</td> <td>☐</td> <td></td> </tr> <tr> <td>Product Improvement</td> <td>☐</td> <td></td> </tr> <tr> <td>Process Improvement</td> <td>☐</td> <td></td> </tr> <tr> <td>Human Factors</td> <td>☐</td> <td></td> </tr> </table>				Operator	☐		Manufacturing Process	☐		Equip/Tooling	☐		Handling/Preservation	☐		Material	☐		Product Improvement	☐		Process Improvement	☐		Human Factors	☐		FAULT CATEGORY <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Pressure/Forced</td> <td style="width:33%;">☐</td> <td style="width:33%;"></td> </tr> <tr> <td>Bending</td> <td>☐</td> <td></td> </tr> <tr> <td>Crushing</td> <td>☐</td> <td></td> </tr> <tr> <td>Cracks</td> <td>☐</td> <td></td> </tr> <tr> <td>Crimp/Kink/Ripple/Wave/Twist</td> <td>☐</td> <td></td> </tr> <tr> <td>Marks/Chatter</td> <td>☐</td> <td></td> </tr> <tr> <td>Mislabeled</td> <td>☐</td> <td></td> </tr> <tr> <td colspan="3">Other/Details: _____</td> </tr> </table>				Pressure/Forced	☐		Bending	☐		Crushing	☐		Cracks	☐		Crimp/Kink/Ripple/Wave/Twist	☐		Marks/Chatter	☐		Mislabeled	☐		Other/Details: _____		
Operator	☐																																																						
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Mislabeled	☐																																																						
Other/Details: _____																																																							
Lead hand / Supervisor 				QC / QA Coordinator 																																																			
Positioned Wrong ☐				Outside Tolerance ☐																																																			
Drawing ☐				Finish ☐																																																			
Part Lost/Missing ☐				Misread ☐																																																			

Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: 198186		Part No. D119-646-241		DISPOSITION		DEPARTMENT/PROCESS		MRB (QS1042)	
Date: 19-08-20		Sequence #: 140		QTY Affected: 1		Disposition		Completed By	
Description Work Order Deviation								Lead hand / Supervisor	
Tube kinked During bending		UNUSABLE , SCRAP		SAVED D3885-1 web				19-8-20	
Root Cause		Fault Category						QC / QA Coordinator	
Operator ☐		Pressure/Forced ☐		Contamination ☐		Power Loss/Surge ☐		Positioned Wrong ☐	
Manufacturing Process ☒		Bending ☐		Misaligned/off center ☐		Folio/Program ☐		Outside Tolerance ☐	
Equip/Tooling ☐		Crushing ☐		BOM/Route ☐		Grain Direction ☐		Drawing ☐	
Handling/Preservation ☐		Cracks ☐		Broken/Damage/Defect ☐		Weld ☐		Finish ☐	
Material ☐		Crimp/Kink/Ripple/Wave/Twist ☒		Incomplete/Unclear Instructions ☐		Wrong Stock Pulled ☐		Part Lost/Missing ☐	
Product Improvement ☐		Marks/Chatter ☐		Drill Holes ☐		Out of Sequence ☐		Misread ☐	
Process Improvement ☐		Mislabeled ☐		Fit/Function ☐		Off-set/Set-up ☐			
Human Factors ☐		Other/Details:							